

DASA[®]

DEVOPS AGILE
SKILLS ASSOCIATION

DASA DEVOPS FUNDAMENTALS

Mock Exam

v2.1 - April 2020

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EXAM DETAILS

| | |
|--|---|
| Exam Duration | 60 minutes (Additional 15 minutes for non-native English speaker) |
| Format of Exam (Open book/Closed book) | Closed book |
| No. of Questions | 40 |
| Pass Percentage | 65% (26 or more correct answers) |

QUESTION SET

QUESTION 1

In a traditional setup, what should an organization do to avoid problems that occur in production?

- A. Encourage group discussions between Development and QA teams in the earlier phases of product development.
- B. Encourage sharing the required information between the Development and Operations teams.
- C. Automate feedback from customers on usability issues.
- D. Develop knowledge articles for unknown issues.

QUESTION 2

Which way can help you dissolve the Wall of Confusion?

- A. Advocating people to be end-to-end responsible for delayed delivery or errors
- B. Avoiding feedback loops to prevent delays
- C. Implementing different ways to perform a given work to ensure compatibility
- D. Executing build rollbacks to maintain data accuracy

QUESTION 3

How does DevOps help in reducing risk associated with digital transformation?

1. Deploying often and in smaller, indivisible groups allow engineers to troubleshoot and resolve issues faster.
 2. Scalability could be quickly achieved, helping the business stay ahead of the competition.
 3. Security could be easily introduced to the software delivery life cycle and helps save both time and effort.
 4. Systems not only entertains the functional requirements but also meets the nonfunctional requirements
- A. 1, 2, and 3
- B. 1, 2, and 4
- C. 1, 3, and 4
- D. 2, 3, and 4

QUESTION 4

Which DevOps principle focuses on increasing efficiency and consistency in the product deployment process?

- A. Customer-Centric Action
- B. Create with the End in Mind
- C. Cross Functional Autonomous Teams
- D. Automate Everything You Can

QUESTION 5

Which DevOps principle best supports the vertical organization of teams?

- A. Cross Functional Autonomous Teams
- B. Continuous Improvement
- C. Create with the End in Mind
- D. End-to-End Responsibility

QUESTION 6

Which characteristic supports an open DevOps culture?

- A. Removal of unnecessary bureaucracy
- B. Individual technical specialists
- C. Not taking risks during development
- D. Stable systems that seldom change

QUESTION 7

Which DevOps principle has a high trust culture and the avoidance of blame as key elements?

- A. Automate everything you can
- B. Cross-functional autonomous teams
- C. Continuous improvement
- D. Create with the end in mind

QUESTION 8

Which of the following ways to measure success is input-oriented?

- A. Continuous Improvement
- B. Leading Indicators
- C. Performance Metrics
- D. Survivorship Bias

QUESTION 9

When an organization decides to work the DevOps way, what should be the logical next move?

- A. Define measures that the organization wants to use to track the progress.
- B. Formulate the reasons why the organization wants to apply DevOps principles.
- C. Identify short-, medium-, and long-term goals that the organization wants to achieve.
- D. Implement built-in controls, audit trails, and risk-aware and autonomous teams.

QUESTION 10

Which descriptions best differentiate the I-shaped profiles from the T-shaped ones?

- A. I-shaped profiles are focused on functional disciplinary skills, whereas T-shaped ones can apply knowledge across situations.
- B. I-shaped profiles are masters of a specific area with knowledge across different domains, whereas T-shaped ones are masters of multiple areas having the capability to provide the overall holistic view of a given situation.
- C. I-shaped profiles are vertical lines (only specialism), whereas T-shaped ones are horizontal (only generalism).
- D. The only point of difference between the two is the capability to have effective collaboration across teams.

QUESTION 11

Which practice will you follow to facilitate a culture of product thinking within the teams?

- A. Allow people to fail safely.
- B. Encourage customers to attend demos.
- C. Let people figure out how to do things.
- D. Use an instant sandbox environment.

QUESTION 12

What is the role of Day Board in Visual Management?

- A. Ensures the work is planned and agreed, and Key Performance Indicators are defined.
- B. Manages the progress of work using a simple setup or a complicated approach.
- C. Pushes team members to share solutions and learning.
- D. Serves as a repository for comments from customers and employees.

QUESTION 13

Which step of the DMAIC method defines and tests hypotheses regarding the problem?

- A. Analyze
- B. Control
- C. Define
- D. Measure

QUESTION 14

What are the behavioral trends of leading a team through Central Command?

1. Decentralization
 2. Informality
 3. Obedience
 4. Tight Rein (Imposed Discipline)
-
- A. 1 and 3
 - B. 2 and 3
 - C. 2 and 4
 - D. 3 and 4

QUESTION 15

Which is the best way to grow a culture in which people pay attention to the level of quality?

- A. Create an environment in which it is safe to fail.
- B. Eliminate handover moments.
- C. Strive towards complete autonomy of the teams.
- D. Test and deliver often to correlate test results to recently performed tasks.

QUESTION 16

Which dysfunction results in disappointed progress due to a team of individuals?

- A. Fear of conflict
- B. Avoidance of accountability
- C. Lack of commitment
- D. Lack of trust

QUESTION 17

What is the “specialty oriented” characteristic of an activity-focused organization?

- A. Resources are added to specific resource pools reflecting specialisms.
- B. Resources perform one specific task in a chain of events at a time.
- C. Resources work on multiple projects at the same time.
- D. The organization is structured for resource optimization.

QUESTION 18

Which are the process-throughput related issues in siloed organizations?

1. Buildup of Work in Progress (WIP)
 2. Difficult for resources to improve
 3. Low responsibility for end-result
 4. Too much product-focus
-
- A. 1 and 2
 - B. 1 and 3
 - C. 1 and 4
 - D. 1, 2, and 3

QUESTION 19

What is the focus of the Technology Stack design criteria for autonomous teams?

- A. People who use the service
- B. Responsibility of the business process
- C. The knowledge and skills the team require
- D. The team's area of responsibility

QUESTION 20

What is the characteristic of autonomous teams?

- A. Communication between teams is unimportant as the focus is on working independently from each other.
- B. The teams are responsible for the qualities of their products, such as availability and performance.
- C. The teams operate collaboratively to deliver individual packages of software changes.
- D. There is proper methodical handover or transfer of responsibility and accountability.

QUESTION 21

What are the complex dynamics that enterprises usually deal with during the scaling process?

- 1. Complex Products and Dependencies
 - 2. Emergent Practices
 - 3. Experimentation
 - 4. Turbulent Markets
- A. 1 and 4
 - B. 2 and 3
 - C. 2 and 4
 - D. 3 and 4

QUESTION 22

Which is the possible focus area of DevOps Business Service teams?

- A. Common strategy and governance
- B. Close integration with the customers
- C. Formal processes to manage services
- D. Process Manager for ITIL processes

QUESTION 23

Which component of ITIL 4 Service Value System refers to a set of organizational resources designed to perform work or accomplish an objective?

- A. Continual Improvement
- B. Governance
- C. Practices
- D. Service Value Chain

QUESTION 24

Which ITIL 4 practices are used by Business System teams in their day-to-day activities?

1. Portfolio Management
 2. Continual Improvement
 3. Incident Management
 4. Release Management
-
- A. 1 and 2
 - B. 1, 2, and 3
 - C. 2, 3, and 4
 - D. 3 and 4

QUESTION 25

Which possible improvement can help organizations improve the flow of work?

- A. Creating flow through push
- B. Determining work in progress
- C. Making process policies explicit
- D. Visualizing the MVP

QUESTION 26

Which Lean principle focuses on evaluating all the activities of the business process from the customer's perspective?

- A. Flow
- B. Perfection
- C. Pull
- D. Value Stream

QUESTION 27

Which type of waste relates to a user story that is not yet finished (as per the Definition of Done)?

- A. Inventory
- B. Overprocessing
- C. Transportation
- D. Waiting

QUESTION 28

Which product development approach is plan-driven and starts with a complete design?

- A. Agile
- B. DevOps
- C. Lean
- D. Traditional waterfall

QUESTION 29

What does the Agile Manifesto say about Customer Collaboration?

- A. Customer Collaboration over Comprehensive Documentation
- B. Customer Collaboration over Contract Negotiation
- C. Customer Collaboration over Following a Plan
- D. Customer Collaboration over Processes and Tools

QUESTION 30

How does the Agile way of working help organizations in lowering risk?

1. Ensuring the team is moving in the right direction
 2. Generating more business value on the longer term
 3. Conducting feedback sessions in a continuous manner
 4. Implementing powerful methods for IT delivery and support
- A. 1 and 3
 - B. 3 and 4
 - C. 1, 3, and 4
 - D. 2, 3, and 4

QUESTION 31

What impact will decreasing the number of services have on complexity as well as on quality of the service?

- A. Complexity and quality will go up
- B. Complexity and quality will go down
- C. Complexity will go up, and quality will go down
- D. Complexity will go down, and quality will go up

QUESTION 32

Which is a characteristic of Microservices Architecture (MSA) that helps support the goal of creating better software, faster and cheaper?

- A. Autonomous Teams
- B. Continuous Deployment
- C. Lean Organizations
- D. Software as a Service

QUESTION 33

Which characteristic of Microservices Architecture (MSA) focuses on simple interfaces having no logic in between?

- A. Componentization via Services
- B. Evolutionary Design
- C. Organized Around Business Capabilities
- D. Smart Endpoints and Dumb Pipes

QUESTION 34

Which characteristic of the automation element of continuous delivery results in cheaper services?

- A. Automation enables measurement driven evaluation of the delivered software features.
- B. Automation (with test automation) results in faster feedback loops.
- C. Automated task execution is focused on standardization, based on minimal required variations.
- D. Automated task execution does not depend on the availability of humans.

QUESTION 35

Which characteristic would you expect in a non-optimized software delivery process?

- A. The flow of work through the teams has been maximized.
- B. The process is based on an organization with siloed teams.
- C. There is automated provisioning of runtime environments.
- D. Pushed software changes can be released in minutes.

QUESTION 36

What do you call the creation of components of environments by using pre-defined procedures that are carried out electronically without requiring human intervention?

- A. Automated Build
- B. Automated Deployment
- C. Automated Provisioning
- D. Automated Test

QUESTION 37

Which type of cloud service will you choose when you have teams with diverse workloads?

- A. Infrastructure as a Service
- B. On-premise
- C. Platform as a Service
- D. Software as a Service

QUESTION 38

What is the characteristic of automated provisioning of mutable components?

- A. Components can be changed once these are created.
- B. Provisioned components are destroyed when new changes are applied.
- C. Delta upgrades of components are not considered.
- D. Components are replaced instead of applying changes.

QUESTION 39

Which monitoring strategy will you use to have insight into the behavior of your users/customers?

- A. Monitor tool agents baked into deployments.
- B. Implement standardization when possible and niche tools when required.
- C. Incorporate the Service Management System (SMS) or data, historical knowledge, and workflows in case of alerts.
- D. Implement a single platform ('single point of truth') to know how an application is performing.

QUESTION 40

What should organizations undergoing DevOps transformation do when mapping the context during situation analysis?

- A. Assemble the teams to ensure team members understand the expectations of the new DevOps teams.
- B. Conduct training to train the new teams for the required knowledge and skills.
- C. Define the customer and the product, map the technology stack, and identify the knowledge required.
- D. Improve the flow of work by shortening processes through automation and removing waste.

ANSWER KEY

| QUESTION NO. | CORRECT ANSWER | BLOOM LEVEL | REFERENCE MODULE | REFERENCE TOPIC |
|--------------|----------------|-------------|------------------------------------|---------------------------------------|
| 1 | B | 1 | DevOps - The Context | DevOps Evolution |
| 2 | A | 1 | DevOps - The Context | DevOps Evolution |
| 3 | C | 2 | DevOps - The Context | Business Benefits of DevOps |
| 4 | D | 1 | DevOps - The Context | DASA DevOps Principles |
| 5 | D | 1 | DevOps - The Context | DASA DevOps Principles |
| 6 | A | 2 | DevOps - The Context | DASA DevOps Principles |
| 7 | B | 2 | DevOps - The Context | DASA DevOps Principles |
| 8 | B | 1 | DevOps - The Context | Goals and Measurement |
| 9 | B | 2 | DevOps - The Context | Goals and Measurement |
| 10 | A | 2 | DevOps for Individuals | From Roles to T-shape DevOps Profiles |
| 11 | B | 1 | DevOps for Teams and Organizations | Culture and Behavior |

| QUESTION NO. | CORRECT ANSWER | BLOOM LEVEL | REFERENCE MODULE | REFERENCE TOPIC |
|--------------|----------------|-------------|------------------------------------|-----------------------|
| 12 | B | 1 | DevOps for Teams and Organizations | Culture and Behavior |
| 13 | A | 1 | DevOps for Teams and Organizations | Culture and Behavior |
| 14 | D | 1 | DevOps for Teams and Organizations | Culture and Behavior |
| 15 | D | 2 | DevOps for Teams and Organizations | Culture and Behavior |
| 16 | D | 2 | DevOps for Teams and Organizations | Culture and Behavior |
| 17 | B | 1 | DevOps for Teams and Organizations | Organizational Models |
| 18 | D | 2 | DevOps for Teams and Organizations | Organizational Models |
| 19 | D | 1 | DevOps for Teams and Organizations | Team Autonomy |
| 20 | B | 2 | DevOps for Teams and Organizations | Team Autonomy |
| 21 | A | 1 | DevOps for Teams and Organizations | DevOps at Scale |
| 22 | B | 1 | DevOps Practices | ITSM |

| QUESTION NO. | CORRECT ANSWER | BLOOM LEVEL | REFERENCE MODULE | REFERENCE TOPIC |
|--------------|----------------|-------------|------------------|------------------------------------|
| 23 | C | 1 | DevOps Practices | ITSM |
| 24 | C | 2 | DevOps Practices | ITSM |
| 25 | C | 1 | DevOps Practices | Lean |
| 26 | D | 1 | DevOps Practices | Lean |
| 27 | A | 2 | DevOps Practices | Lean |
| 28 | D | 1 | DevOps Practices | Agile |
| 29 | B | 1 | DevOps Practices | Agile |
| 30 | C | 2 | DevOps Practices | Agile |
| 31 | D | 1 | DevOps Practices | Architecture |
| 32 | A | 1 | DevOps Practices | Architecture |
| 33 | D | 2 | DevOps Practices | Architecture |
| 34 | C | 1 | DevOps Practices | Continuous Delivery and Automation |
| 35 | B | 1 | DevOps Practices | Continuous Delivery and Automation |
| 36 | C | 2 | DevOps Practices | Continuous Delivery and Automation |

| QUESTION NO. | CORRECT ANSWER | BLOOM LEVEL | REFERENCE MODULE | REFERENCE TOPIC |
|--------------|----------------|-------------|------------------|---------------------------------|
| 37 | A | 1 | DevOps Practices | Modern Infrastructure and Cloud |
| 38 | A | 1 | DevOps Practices | Modern Infrastructure and Cloud |
| 39 | C | 1 | DevOps Practices | Operations |
| 40 | C | 1 | The Next Steps | Analyze the Current Situation |

RATIONALS

QUESTION 1

Correct Answer: B

Rational: In the presence of Wall of Confusion, there is no methodical hand-over to the Operations. As a result, the Operations team faces problems in production that they are unable to solve and look to the Development team for resolving the problem. Such a feedback loop delays problem resolution. Having healthy group discussions, sharing information, and developing knowledge articles for the known issues help avoid such a situation to occur.

QUESTION 2

Correct Answer: A

Rational: Option A is correct. For each error, bug, or resulting incident, each team tries to ensure they are not identified as the cause of the issue. Therefore, they tend to pass on the blame of delayed delivery or errors to each other, leading to further irritation, lack of understanding, and intensifying the wall of confusion. Advocating the people to avoid blame games and being end-to-end responsible is one of the key ways that helps in dissolving the Wall of Confusion.

Option B and Option C will contribute in making the Wall of Confusion stronger.

Option D can be one of the solutions to ensure data accuracy that might occur due to a variety of causes, such as incorrect client requirements, incorrect database in the QA or Production environment, incompatible tools and others.

QUESTION 3

Correct Answer: C

Rational: The ways 1, 3, and 4 somehow contribute to reducing the level of risk. Faster troubleshooting helps organizations with minimum or negligible business loss. Security is always a big risk factor. Focusing on nonfunctional requirements along with functional ones helps enhance the quality of the systems, thereby reducing the risk of failure (more success rate of acceptance).

QUESTION 4

Correct Answer: D

Rational: Moving away from manual efforts to automation, derives efficiency and consistency in the process. Automation provides several ways to increase the speed, reduce the cost, and enhance the quality of IT.

QUESTION 5

Correct Answer: D

Rational: In a DevOps organization, teams are vertically organized so that they can be end-to-end responsible (fully accountable) for their services.

QUESTION 6

Correct Answer: A

Rational: The four key characteristics support an open DevOps culture: no bureaucracy, no fear of asking questions, risk taking, Innovating. Only option A supports this list.

QUESTION 7

Correct Answer: B

Rational: Cross-functional teams are required to collaborate effectively to make DevOps work. Trust and avoiding a blame culture are central to this.

QUESTION 8

Correct Answer: B

Rational: Performance metrics are typically output oriented, easy to measure, but hard to improve or influence. These metrics are known as lagging indicators. Performance predictors are typically input oriented, hard to measure, and easy to influence. These metrics are known as leading indicators.

QUESTION 9

Correct Answer: B

Rational: The first step in moving towards DevOps is to formulate the reasons WHY your organization wishes to apply DevOps principles. The second step is to identify the short, medium and long-term goals you are trying to achieve. The third step is defining the measures you wish to use to identify whether you are achieving those goals.

QUESTION 10

Correct Answer: A

Rational:

- Option A is correct. I-shaped profiles have functional disciplinary skills, which means specialist in a specific area. T-shaped profiles have the ability to apply knowledge across situations and are specialists in one or more areas.
- Option B is incorrect as I-shaped do not have the ability to apply knowledge across different domains.
- Option C is incorrect as T-shaped profiles are not only horizontal. They are the combination of both vertical and horizontal.
- The point of difference between the two is not only the capability to have effective collaboration across teams. Please refer to the preceding points.

QUESTION 11

Correct Answer: B

Rational: Some of the tips to facilitate a culture of product thinking are:

- Encourage customers to attend demos.
- Implement user feedback into a storyboard.
- Allow customers to write about products and respond.
- Organize people around the product.
- Encourage the team to write blogs about products (you build it; you run it).

QUESTION 12

Correct Answer: B

Rational: Visual Management includes the following three boards. Each board has its own role, such as:

- The Day board is used to manage the progress of work on a daily basis. The management can be done using the simple “To Do-Doing-Done” setup or a more complicated approach.
- The Week board is used to ensure the work is planned and agreed. It is also a place where a team should discuss their Key Performance Indicators (KPIs). Such a discussion is preferred on a daily basis. However, if it is impossible, the discussion should happen at least once a week. The board also serves as a repository for comments from customers and employees.

- The Improvement board is where all the problems or improvements initiatives are collected that need to be solved or carried out. It is the place where the team members should communicate and share solutions and learnings. It also shows the progress on problem-solving.

QUESTION 13

Correct Answer: A

Rational: You cannot solve a problem, unless you first **Define** it. Defining a problem includes describing the current situation and why it is not acceptable. Therefore, you should ensure the on-board stakeholders agree with the statement defining the problem. You should then **Measure** the variables that can influence the problem by collecting the related data and facts. It is vital to ensure that the data is correct. The next step is to **Analyze** the gathered data. Such an analysis includes structuring and visualizing the data into a format that will allow you to understand what the data is all about and converting it into information. You can then use the information to test hypotheses regarding the problem. Having understood the dynamics of the problem, you can now move on to the **Improve** phase, which defines potential solutions to the problem. Once a number of solutions are generated, decide the improvement to implement. After ensuring whether a particular solution works, embed the solution into the organization's way of working in the Control phase and share any lessons learned.

QUESTION 14

Correct Answer: D

Rational:

| Mission Command | Versus | Central Command |
|---|----------------------|---|
| Probabilistic Unpredictable Decentralization Spontaneity Informality Loose Rein | Assumptions | Deterministic Predictable |
| Self-discipline Initiative Cooperation Faster Acceptable Decisions Echelons Ability Higher Tempo | Behavioral Trends | Centralization Coercion Formality Tight Rein Imposed Discipline Obedience Compliance Optimal Decisions (but later) Ability Focused at the Top |
| Implicit Vertical and Horizontal Interactive | Communication Styles | Explicit Vertical Linear |
| Delegating Transformational | Leadership Styles | Directing Transactional |

QUESTION 15

Correct Answer: D

Rational: Testing is done to check whether the products are meeting the acceptance and quality criteria from the customers and users. When the test fails, then the team is dealing with rework (waste). Creating good products and services results in successful tests and helps to create a culture to pay more attention to the level of quality. Other options A, B, and C relate to the other areas of culture.

- Option A helps grow a culture of experimentation.
- Option B helps grow a culture of effectiveness.
- Option C helps grow a culture of product thinking.

QUESTION 16

Correct Answer: D

Rational: Answer D is correct. Lack of trust between the team members is like a team of individuals working together. Such a team often results in disappointed progress.

QUESTION 17

Correct Answer: B

Rational: The characteristics of an activity-focused organization include:

- **Specialty Oriented:** Resources are specialty oriented. In other words, resources perform one specific task in a chain of events at a time, such as updating a database.
- **Functionally Organized:** Resources are functionally organized implying resources are added to specific resource pools reflecting specialisms, for example, a pool of database administrators.
- **Project Focused:** Resources work on projects with a beginning and an end, and resources can be assigned to multiple projects at once.
- **Work with Individuals:** The organization works with individuals who are seen to be interchangeable.
- **Optimized for Resource Utilization:** This type of organization is optimized for resource utilization.

QUESTION 18

Correct Answer: D

Rational:

- A. Incorrect. Delay in throughput might build up WIP.
- B. Incorrect. For a person in a silo, it is hard to sense the implications of his/her actions in another silo.
- C. Incorrect. When software construction activities are divided over multiple resources in different silos, a single resource will not feel responsible for the end-result.
- D. Correct. Product focus helps to focus on the end-result and to improve the process towards the end-result.

QUESTION 19

Correct Answer: D

Rational: The following three design criteria for an autonomous teams focus on:

- Customer:
- People who use the service
- Responsibility of the business process
- Technology Stack:
- The team's area of responsibility
- Knowledge:
- The knowledge and skills the team require

QUESTION 20

Correct Answer: B

Rational: Some of the characteristics of autonomous teams considering the options provided in the question include:

- Interfaces between different teams are clearly defined through Application Programming Interfaces (APIs).
- The teams are responsible for the qualities of their products, such availability and performance.
- The teams operate (largely) autonomously and work (largely) independently from one another to deliver a continuous stream of (software) change.
- The teams have an end-to-end responsibility. There is no handover or transfer of responsibility and accountability.

QUESTION 21

Correct Answer: A

Rational: When scaling, enterprises usually deal with complex dynamics, such as:

- Turbulent markets and changing customer demands
- Complex products and dependencies between products, systems, and teams
- Formal and informal social structures and communication lines
- Multi-vendor/cloud landscapes
- Different blends of skills, attitudes, and behaviors
- Inevitable compliance and regulatory influences

The incorrect points 2 and 3 are the ways to deal with scaling complexity, not the complex dynamics.

QUESTION 22

Correct Answer: B

Rational:

- One of the challenges for DevOps teams is to maintain a common strategy and governance.
- One of the focus areas of DevOps service teams is to integrate closely with the customers to understand the demand.
- Traditional organizations require formal processes to manage services.
- Traditional organizations need a Process Manager for ITIL processes.

QUESTION 23

Correct Answer: C

Rational:

- **Continual improvement:** Refers to a recurring activity performed at all levels to ensure that an organization's performance continually meets stakeholders' expectations.
- **Governance:** Refers to the means by which an organization is directed and controlled.
- **Practices:** Refer to a set of organizational resources designed to perform work or accomplish an objective.
- **Service value chain:** Is the operating model and refers to a set of activities performed by an organization to deliver a valuable product or services to its consumers.

QUESTION 24

Correct Answer: C

Rational: Portfolio Management is usually done at a higher level in an organization. The other three are focused on day-to-day operational activities.

QUESTION 25

Correct Answer: C

Rational: Possible improvements which can help organizations improve the flow of work are:

- Visualize the workflow.
- Limit WIP.
- Create pull and flow.
- Make process policies explicit.
- Improve collaboratively.

QUESTION 26

Correct Answer: D

Rational: Value Stream assesses if all the activities in the process add value in the eyes of the customer. Flow creates a continuous flow in production with the Just-in-Time approach and reduces peak and low volumes. Pull triggers the process chain in order to reduce stock. Perfection focuses on first time right and quality prevention of defects.

QUESTION 27

Correct Answer: A

Rational:

- A. Correct. Such a story can be defined as WIP.
- B. Incorrect. Overprocessing is related to more work or more quality than is required by the customer.
- C. Incorrect. In software development, transportation is related to task switching.
- D. Incorrect. Waiting is related to delay in general.

QUESTION 28

Correct Answer: D

Rational: Traditional way of developing products is plan-driven and starts with a complete product design. The development is followed by testing the final product. Agile starts with delivering basic functionality to which features are added. Lean provides tools to visualize the value stream and measure it. Such measurements help improve the delivery pipeline by eliminating bottlenecks, and making it more efficient and productive. DevOps focuses on the cultural aspects of developing a product.

QUESTION 29

Correct Answer: B

Rational:

Agile Manifesto:

We are uncovering better ways of developing software by doing it and helping others to do it. Through this work we have come to value:

- Individuals & Interactions over Processes & Tools
- Working Software over Comprehensive Documentation
- Customer Collaboration over Contract Negotiation
- Responding to Change over Following a Plan

“While there is value in the items on the right, we value the items on the left more.”

QUESTION 30

Correct Answer: C

Rational: Points 1, 3, and 4 helps in reducing the likelihood of risk either directly or indirectly.

- **Point 1:** Ensuring the team is doing the right things according to the direction is all about analyzing risk and taking the necessary action(s) to lower the likelihood of risk involved.
- **Point 3:** Conducting feedback in a continuous manner is about learning from the mistakes and the feedback received. The knowledge and experience further helps in reducing risk.

- **Point 4:** Implementing powerful methods for IT delivery and support helps reduce the risks of being inefficient and ineffective.

Point 2 is the only incorrect option as generating more business value on the longer term is focused on generating more revenue.

QUESTION 31

Correct Answer: D

Rational: Number of services is directly proportional to complexity, and complexity is indirectly proportional to quality. In other words, as the number of services goes down, the complexity will also go down. As the complexity goes down, the quality will go up.

QUESTION 32

Correct Answer: A

Rational: Many trends in the software development support the goal of creating better software, faster and cheaper, such as:

- **Agile Organizations:** Dedicated teams over resourcing, products over projects, prioritization over planning, and outcome over output
- **Continuous Delivery:** Cycle time measured in hours or even minutes
- **Autonomous Teams:** You build it, you run it, shared nothing is more important than aiming to deliver the best quality

- **Reactive Manifesto:** Responsive, resilient, scalable, and loosely-coupled (message-driven) systems that are easy to develop and change
- **Platform as a Service (PaaS):** Cheap, easy, and fast runtime environments for apps

QUESTION 33

Correct Answer: D

Rational:

- **Componentization via Services:** It is independently deployable, cloud-ready, and scalable.
- **Evolutionary Design:** The design supports independent replacement and upgradeability.
- **Organized Around Business Capabilities:** Organizations are organized around business capabilities (MSAs) and use Melvin Conway's law.
- **Smart Endpoints and Dumb Pipes:** These are simple interfaces having no logic in between, such as the Enterprise Service Bus.

QUESTION 34

Correct Answer: C

Rational: Automating continuous delivery results in cheaper services as:

- Automated task execution is more reliable than manual task execution. Manual execution errors are expensive and might not be detected immediately.

- Automated task execution is more repeatable than manual task execution.
- Automated task execution requires no human effort (which is more expensive than machine time).
- Automated task execution requires standardization, based on minimal required variations. Every variation requires specific procedures and maintenance.

QUESTION 35

Correct Answer: B

Rational: It is visible where individuals work on (functional) specialty tasks with many handovers between the different specialties. For example, an architect writes a solution architecture document. Once completed, there is a handover to the Information Analyst to specify the functional design.

QUESTION 36

Correct Answer: C

Rational: Automated provisioning creates environments, such as network components, server components, and runtime software stacks.

Such an environment can be created on demand using a fully automated (system provisioning) process. Automated deployment refers to the application environment. Automated test refers to the execution of testing and Automated build refers to the committed code to deployable artifacts.

QUESTION 37

Correct Answer: A

Rational: Some examples that can help you choose the right type of cloud service are:

- **On-Premise:** If you have strict regulations where your data might be stored or need specific hardware, you might choose to do everything on-premise, for example, banks or government organizations.
- **Infrastructure as a Service (IaaS):** When you have teams with diverse workloads, you can go with IaaS. It provides the teams the most flexibility when removing the burden of maintaining the physical infrastructure.
- **Platform as a Service (PaaS):** If you have more of homogeneous workload, you can go with PaaS. Standardizing the deployment and the target stack application helps teams to focus on the development of their applications.
- **Software as a Service (SaaS):** If you want to use a functionality but do not want to develop the software, you can choose SaaS. This approach allows you to remove management of everything except the configuration of the application.

QUESTION 38

Correct Answer: A

Rational: Automated provisioning of mutable components implies that the components which are provisioning can be changed after these have been created. Options B, C, and D, are the characteristics of automated provisioning of immutable components.

QUESTION 39

Correct Answer: C

Rational:

- Real-time dashboards for all involved, including customers and business helps visualize everything, including the real-time status of services.
- Standardization when possible and niche tools when required help stimulate experimentation, MVP, and courage.
- Incorporate the Service Management System (SMS) or data, historical knowledge, and workflows in case of alerts provide a great source of insight into the behavior of your users/customers.
- Incorporate social media (when applicable) data in the monitoring for monitoring the business is one of the quickest ways to find out what customers are doing with our services/products in the market.

QUESTION 40

Correct Answer: C

Rational: Organizations undergoing DevOps transformation map the context during situation analysis and focus on design criteria. They define the customer and the product, map the technology stack, and identify the knowledge required.

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